

Claims

1. A method of operating a telecommunications system in which mobile terminals may communicate with base station transceivers over an air interface, a communication to another user terminal being supported in macrodiversity by radio links between a plurality of base station transceivers and a mobile terminal, the radio links in macrodiversity having a set of common radio link configuration parameters, the method comprising the steps of:

5 10 transmitting a radio link configuration change message to each of the base station transceivers and the mobile terminal; and

15 waiting before implementation of the radio link configuration change until an acknowledgement has been received from at least one base station transceiver in transmitting communication with the mobile terminal, at least one base station transceiver in receiving communication with the mobile terminal and the mobile terminal.

20 2. The method according to claim 1, wherein the waiting step includes waiting for confirmation from a base station transceiver in receiving communication with the mobile terminal which provides a minimum quality of service.

25 3. The method according to claims 1 or 2, further comprising the step of transmitting a radio link configuration apply message after receipt of the confirmation messages.

4. The method according to claim 3, wherein the apply message is transmitted first to the mobile terminal for application of the new configuration to uplink messages from the mobile terminal, and the apply message is transmitted to the base station transceivers for application of the new configuration to transmissions in the downlink only after receipt of uplink transmissions in accordance with the new configuration.

30 5. The method according to any one of the previous claims, wherein a change in common configuration is detected by a change in a property of received signals.

6. The method according to claim 5, wherein the property is the polarity of error

detection data.

7. The method according to any previous claim, wherein the radio links include dedicated channels for the transmission of control data and user data between the mobile terminal and the plurality of base station transceivers, and transmissions on the dedicated channels include a transmit format combination indicator for indicating the currently valid combination of common transmission parameters of the radio links.

8. The method according to any previous claim, wherein the common radio link configuration includes at least one of transport block size, transport block set size, transmission time interval, type of channel coding, type of channel interleaving, rate matching or a combination of these.

9. A telecommunication system in which mobile terminals communicate with base station transceivers over an air interface, a communication between a mobile terminal in macrodiversity and another user terminal being connected by radio links to a plurality of base station transceivers, the radio links having a set of common radio link configuration parameters, the system comprising:

a network element adapted for transmitting a change in radio link configuration message to the plurality of base station transceivers and the mobile terminal, and for waiting before application of the change in configuration for an acknowledgement of the receipt of the change message from at least one the base station transceiver in transmitting communication with the mobile terminal, at least one base station transceiver in receiving communication with the mobile terminal and the mobile terminal.

10. The system according to claim 9, wherein the system is adapted to wait for confirmation from a base station transceiver in receiving communication with the mobile terminal which provides a minimum quality of service.

11. The system according to claim 9 or 10, wherein the mobile terminal is adapted to change a property of transmissions on change of the uplink configuration.

12. The system according to claim 11, wherein the change in property is the polarity of error detection data.

5 13. The system according to any of claims 9 to 12, wherein the network element is also adapted to transmit a radio link configuration apply message after receipt of the confirmation messages.

10 14. The system according to claim 13, wherein the network element is adapted to transmit the apply message first to the mobile terminal for application of the new configuration to uplink messages from the mobile terminal, and to transmit the apply message to the base station transceivers for application of the new configuration to transmissions in the downlink only after receipt of uplink transmissions in accordance with the new configuration.

15 15. A network element for use in a telecommunication system in which mobile terminals communicate with base station transceivers over an air interface, a communication between a mobile terminal in macrodiversity and another user terminal being connected by radio links to a plurality of base station transceivers, the radio links having a set of common radio link configuration parameters, the network element being adapted for transmitting a change in radio link configuration message to the plurality of base station transceivers and the mobile terminal, and for waiting before application of the change in configuration for an acknowledgement of the receipt of the change message from at least one the base station transceiver transmitting messages to the mobile terminal, at least one base station transceiver receiving messages from the mobile terminal and the mobile terminal.

20 25 16. A method of operating network element in a telecommunications system in which mobile terminals may communicate with base station transceivers over an air interface, a communication to another user terminal being supported in macrodiversity by radio links between a plurality of base station transceivers and a mobile terminal, the radio links having a set of common radio link configuration parameters, the method comprising the steps of:

30 transmitting from the network element a radio link configuration change message

to each of the base station transceivers and the mobile terminal; and

waiting before applying the radio link configuration change until an acknowledgement has been received from at least one base station transceiver transmitting messages to the mobile terminal, at least one base station transceiver receiving messages from the mobile terminal and the mobile terminal.

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17. A mobile terminal for use in a telecommunications system in which the mobile terminal may communicate with base station transceivers over an air interface, a communication to another user terminal being supported in macrodiversity by radio links between a plurality of base station transceivers and the mobile terminal, the radio links having a set of common radio link configuration parameters, the mobile terminal being adapted to receive a common configuration confirmation message and to transmit a confirmation of receipt of this message and to apply the new common configuration on uplink transmissions after receipt of a configuration apply message.

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